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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/809,780 | 03/26/2004 | Yang Gi Kim | LT-0054 | 7020 |
| 34610 | 7590 | 03/17/2008 | | |
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| EXAMINER | | | | |
| BRINEY III, WALTER F | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2615 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/809,780

Applicant(s)

KIM ET AL.

Examiner

WALTER F. BRINEY III

Art Unit

2615

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1-19 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Replay Gain – A Proposed Standard, <http://www.replaygain.org> (retrieved on 19 August 2007) (last updated on 10 October 2001) (herein *Replay Gain*) in view of MP3Gain version 0.9.7, <http://web.archive.org/web/20021203004344/home.hecnet.nl/h.edskes/mirror.htm> (retrieved on 19 August 2007) (first available on 30 October 2002) (herein *MP3Gain*) and further in view of ISO 11172-3, Coding of Moving Pictures and Associated Audio For Digital Storage Media at up to about 1.5 MBit/s, Part 3 Audio, (retrieved 02 March 2008) (herein *ISO*) (used to show inherent features of MP3 decoding). The following list of references are used herein strictly for establishing dates of certain prior art features used to reject the claims: Windows XP, Wikipedia, http://en.wikipedia.org/wiki/Windows_XP (retrieved on 19 August 2007); MP3Gain 0.9.7 Final Beta Forum, <http://www.hydrogenaudio.org/forums/lofiversion/index.php/t4132.html> (retrieved on 19 August 2007).**

Claim 1 is limited to a method for adjusting an output level of audio data to be reproduced. Claim 1, as instantly amended, further limits the detecting an output level of temporarily stored audio step, to wit, the detecting step uses scale factors of sub-bands of audio frames of the temporarily stored audio to determine the output level. In the Non-Final Rejection at p. 3 (29 August 2007), the examiner noted that *Replay Gain* determines the RMS level of each MP3 track. The examiner also noted that calculating the RMS level inherently requires temporarily storing the MP3 track. In fact, *Replay Gain* discloses decompressing an MP3 to generate a waveform usable to determine the peak amplitude, since an MP3 is not a waveform. *Replay Gain* at § Peak Amplitude Data Format ¶¶ Compressed files, Implementation. RMS energy calculation requires a waveform as well as peak amplitude calculation, so RMS energy calculation also requires decompressing an MP3 file to create a waveform for just enough time to execute sampling. *Replay Gain* at § RMS Energy ¶ General concept. Decompressing an MP3 file inherently makes use of scale factors of sub-bands of audio frames. *ISO* at p.37. So calculating the RMS energy of an MP3 requires decoding the MP3 using scale factors. In the Non-Final Rejection at p. 3, the examiner correlated the RMS energy calculated by *Replay Gain* to the claimed output level, so *Replay Gain* discloses using scale factors of sub-bands of audio frames of temporarily stored audio to determine an output level as claimed. All other claim 1 limitations not analyzed *supra* are rejected for the reasons set forth in the Non-Final Rejection at pp. 3-5. Therefore, claim 1 is rejected as obvious over *Replay Gain* in view of *MP3Gain* and further in view of *ISO*.

Claims 2-19 and 21-23 all include the new limitation concerning detecting an output level of temporarily stored audio analyzed in claim 1 *supra*, and are rejected for the same reasons

expressed in claim 1. All other limitations not specifically analyzed are rejected for the same reasons set forth in the Non-Final rejection at pp. 5-12. Therefore, claims 2-19 and 21-23 are rejected as obvious over *Replay Gain* in view of *MP3Gain* and further in view of *ISO*.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

2. **Claim 20 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

Claim 20 is limited to the system of claim 19. This claim limits the peak level/average level determination by determining the peak level/average level of the audio file by accumulatively adding only sampled ones of the scale factors. While *Replay Gain* calculates an RMS value of a decompressed MP3 file, the sub-band scale factors are only for decompressing the MP3 file and not determining the RMS value. *Replay Gain* at §§ RMS Energy, Peak Amplitude Data Format ¶¶ Compressed files, Implementation. Therefore, claim 20 is allowable over *Replay Gain* in view of *MP3Gain* and further in view of *ISO*.

Response to Arguments

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

5 A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37
10 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WALTER F. BRINEY III whose telephone number is (571)272-
15 7513. The examiner can normally be reached on M-F 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10 /wfb/
3/15/08

15 /Sinh N Tran/
Supervisory Patent Examiner, Art Unit 2615